

2633



PATENT  
Attorney Docket No.: SAM-0182

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Yong-Sub Kim  
Serial No.: 09/751,182  
Filing Date: December 29, 2000  
Patent No:  
Issue Date:

Examiner: Not Yet Assigned  
Group Art Unit: 2633

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Technology Center 2600

Title: Optical Transmission System for Compensating  
for Transmission Loss

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

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August 27, 2001  
Date

Denise M. Donahue  
Denise Donahue

Assistant Commissioner for Patents  
Washington, DC 20231

TRANSMITTAL LETTER

Sir:

Enclosed herewith for filing in the above-identified patent application or issued patent please find the following listed items:

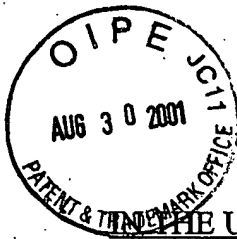
1. Copy of Power of Attorney by Assignee of Entire Interest with Revocation of Prior Powers and Certification under 37 C.F.R. 3.73(b) for a Plurality of Patent Applications and Patents; and
2. Return Postcard.

The original version of this paper is filed in the U.S. Patent and Trademark Office in the file of U.S. Patent Number 5,973,329, which issued on October 26, 1999. The public is therefore authorized to inspect and copy the original paper.

Respectfully submitted,

Date: August 27, 2001  
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Attorney for Applicant



PATENT  
Attorney Docket No.: SAM-009

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Technology Center 800

Applicant(s): Kim  
U. S. Patent No.: 5,973,329  
Serial No.: 09/062,314/757,182  
Title: Ion Generating Apparatus for Semiconductor Manufacturing Equipment  
Including Magnetic Field Switching Apparatus

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Post Office as First Class Mail on the date indicated below in an envelope addressed to Assistant Commissioner for Patents, Washington, DC 20231.

July 18, 2001  
Date

Vanessa M. Marakas  
Vanessa Marakas

Assistant Commissioner for Patents  
Washington, D.C. 20231

POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST  
WITH REVOCATION OF PRIOR POWERS AND  
CERTIFICATION UNDER 37 CFR 3.73(b)  
FOR A PLURALITY OF PATENT APPLICATIONS AND PATENTS

Sir:

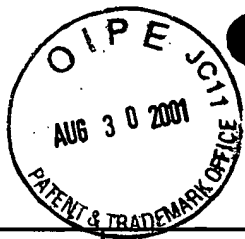
Samsung Electronics Co., Inc., the assignee of record of the entire interest of the U. S. patent applications identified in Table 1 below and the issued U. S. patents identified in Table 2 below, hereby revokes all powers of attorney previously given and hereby grants new powers of attorney to the following attorney(s) and/or agents, all of the firm Mills & Onello, LLP, Eleven Beacon Street, Suite 605, Boston, Massachusetts, to prosecute and transact all business in the Patent and Trademark Office connected therewith.

Steven M. Mills - 36,610

Anthony P. Onello, Jr. - 38,572

SEND ALL CORRESPONDENCE AND DIRECT ALL TELEPHONE CALLS IN  
CONNECTION WITH ALL OF THE APPLICATIONS AND PATENTS TO:

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Table 1: U.S. Patent Applications

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/009,211    | 1/20/98     | 6/29/98                     | 9320   | 0888  | SAM-001                |
| 09/512,128    | 2/24/00     | 4/24/00                     | 010775 | 0511  | SAM-003                |
| 60/121,764    | 2/26/99     | 4/26/99                     | 9913   | 0053  | SAM-003PR              |
| 09/714,392    | 11/16/00    |                             |        |       | SAM-008CIPDIV          |
| 09/560,359    | 4/28/00     |                             |        |       | SAM-008DIV             |
| 09/072,280    | 5/4/98      | 5/4/98                      | 9159   | 0911  | SAM-010                |
| 09/082,170    | 5/20/98     | 5/20/98                     | 9189   | 0228  | SAM-012                |
| 09/757,747    | 1/10/01     |                             |        |       | SAM-013DIV             |
| 09/060,242    | 4/14/98     | 7/13/98                     | 9316   | 0800  | SAM-016                |
| 09/174,394    | 10/14/98    | 10/14/98                    | 9522   | 0115  | SAM-020                |
| 09/082,353    | 5/20/98     | 5/20/98                     | 9189   | 0203  | SAM-023                |
| 09/089,525    | 6/3/98      | 8/17/98                     | 9391   | 0247  | SAM-024                |
| 09/140,152    | 8/26/98     | 8/26/98                     | 9415   | 0385  | SAM-025                |
| 09/103,430    | 6/24/98     | 9/24/98                     | 9474   | 0839  | SAM-034                |
| 09/162,267    | 9/29/98     | 3/22/99                     | 9836   | 0661  | SAM-038                |
| 60/090,137    | 6/22/98     |                             |        |       | SAM-038PR              |
| 09/198,230    | 11/23/98    | 11/23/98                    | 9606   | 0518  | SAM-041                |
| 09/847,639    | 5/2/01      |                             |        |       | SAM-041DIV             |
| 09/139,921    | 8/26/98     | 10/30/98                    | 9568   | 0238  | SAM-042                |
| 09/195,893    | 11/19/98    | 11/19/98                    | 9606   | 0616  | SAM-043                |
| 09/205,545    | 12/3/98     | 1/22/99                     | 9932   | 0332  | SAM-048                |
| 09/135,288    | 8/17/98     | 10/22/98                    | 9545   | 0535  | SAM-049                |
| 09/182,358    | 10/29/98    | 10/29/98                    | 9563   | 0887  | SAM-052                |
| 09/153,169    | 9/15/98     | 12/10/98                    | 9637   | 0972  | SAM-053                |

Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/175,088    | 10/19/98    | 10/19/98                    | 9523   | 0430  | SAM-054                |
| 09/841,652    | 4/24/01     |                             |        |       | SAM-054DIV             |
| 09/187,396    | 11/6/98     | 11/6/98                     | 9573   | 0096  | SAM-056                |
| 09/251,539    | 2/17/99     | 7/12/99                     | 010077 | 0234  | SAM-059                |
| 09/189,192    | 11/10/98    | 1/12/99                     | 9687   | 0858  | SAM-060                |
| 09/195,591    | 11/18/98    | 11/18/98                    | 9597   | 0721  | SAM-061                |
| 09/298,732    | 4/23/99     | 4/23/99                     | 9920   | 0244  | SAM-065                |
| 09/300,924    | 4/28/99     | 4/28/99                     | 9928   | 0356  | SAM-066                |
| 09/316,595    | 5/21/99     | 5/21/99                     | 009982 | 0957  | SAM-067                |
| 09/313,486    | 5/17/99     | 5/17/99                     | 009979 | 0735  | SAM-068                |
| 09/273,643    | 3/23/99     | 3/23/99                     | 9850   | 0209  | SAM-069                |
| 09/296,218    | 4/22/99     | 4/22/99                     | 9914   | 0014  | SAM-070                |
| 09/311,327    | 5/13/99     | 5/13/99                     | 009963 | 0028  | SAM-071                |
| 09/351,092    | 7/9/99      | 7/9/99                      | 010099 | 0957  | SAM-072                |
| 09/298,652    | 4/23/99     | 4/23/99                     | 9921   | 0433  | SAM-073                |
| 09/349,372    | 7/8/99      | 7/8/99                      | 010094 | 0479  | SAM-075                |
| 09/344,602    | 6/25/99     | 6/25/99                     | 010065 | 0524  | SAM-076                |
| 09/354,247    | 7/15/99     | 7/15/99                     | 010102 | 0830  | SAM-079                |
| 09/449,147    | 11/24/99    | 11/24/99                    | 010412 | 0516  | SAM-080                |
| 09/478,162    | 1/5/00      | 1/5/00                      | 010497 | 0292  | SAM-081                |
| 09/490,035    | 1/21/00     | 1/21/00                     | 010549 | 0769  | SAM-084                |
| 09/819,448    | 3/28/01     |                             |        |       | SAM-084DIV             |
| 09/479,602    | 1/7/00      | 1/7/00                      | 010534 | 0415  | SAM-085                |
| 09/441,860    | 11/17/99    | 7/17/00                     | 010978 | 0001  | SAM-086                |

Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/695,341    | 10/24/00    | 10/24/00                    | 011265 | 0976  | SAM-087                |
| 09/782,116    | 2/13/01     |                             |        |       | SAM-087CIP             |
| 60/161,479    | 10/25/99    |                             |        |       | SAM-087PR              |
| 09/477,235    | 1/4/00      | 1/4/00                      | 010517 | 0574  | SAM-088                |
| 09/514,744    | 2/28/00     | 2/28/00                     | 010642 | 0839  | SAM-090                |
| 09/481,158    | 1/12/00     | 1/12/00                     | 010500 | 0180  | SAM-091                |
| 09/539,138    | 3/30/00     | 3/30/00                     | 010709 | 0413  | SAM-092                |
| 09/525,730    | 3/14/00     | 3/14/00                     | 010694 | 0722  | SAM-093                |
| 09/492,589    | 1/27/00     | 1/27/00                     | 010551 | 0374  | SAM-094                |
| 09/538,879    | 3/30/00     | 3/30/00                     | 010713 | 0341  | SAM-095                |
| 09/524,069    | 3/13/00     | 3/13/00                     | 010670 | 0441  | SAM-096                |
| 09/521,904    | 3/9/00      | 3/9/00                      | 010670 | 0702  | SAM-097                |
| 09/484,974    | 1/18/00     | 1/18/00                     | 010542 | 0081  | SAM-098                |
| 09/476,567    | 1/3/00      | 1/3/00                      | 010521 | 0391  | SAM-099                |
| 09/513,796    | 2/25/00     | 2/25/00                     | 010643 | 0359  | SAM-100                |
| 09/620,666    | 7/20/00     | 7/20/00                     | 010989 | 0239  | SAM-103                |
| 09/513,712    | 2/25/00     | 2/25/00                     | 010636 | 0802  | SAM-104                |
| 09/645,285    | 8/24/00     | 8/24/00                     | 011059 | 0830  | SAM-105                |
| 09/639,833    | 8/16/00     | 8/16/00                     | 011050 | 0151  | SAM-106                |
| 09/491,383    | 1/26/00     | 1/26/00                     | 010554 | 0267  | SAM-107                |
| 09/481,251    | 1/11/00     | 4/5/00                      | 010730 | 0275  | SAM-108                |
| 09/677,029    | 9/29/00     | 9/29/00                     | 011168 | 0092  | SAM-109                |
| 09/552,424    | 4/19/00     | 4/19/00                     | 010759 | 0475  | SAM-110                |
| 09/630,292    | 8/1/00      | 8/1/00                      | 010985 | 0936  | SAM-111                |

Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/553,537    | 4/20/00     | 7/27/00                     | 011004 | 0043  | SAM-112                |
| 09/532,178    | 3/20/00     | 3/20/00                     | 010687 | 0180  | SAM-113                |
| 09/528,676    | 3/20/00     | 7/24/00                     | 010985 | 0276  | SAM-114                |
| 09/546,131    | 4/10/00     | 4/10/00                     | 010732 | 0862  | SAM-115                |
| 09/520,862    | 3/7/00      | 3/7/00                      | 010661 | 0869  | SAM-116                |
| 09/595,847    | 6/16/00     | 6/16/00                     | 010908 | 0541  | SAM-117                |
| 09/612,072    | 7/7/00      | 7/7/00                      | 010954 | 0259  | SAM-118                |
| 09/522,426    | 3/9/00      | 3/9/00                      | 010659 | 0458  | SAM-119                |
| 09/525,559    | 3/15/00     | 3/15/00                     | 010658 | 0257  | SAM-120                |
| 09/724,152    | 11/28/00    | 11/28/00                    | 011297 | 0088  | SAM-121                |
| 09/610,498    | 7/5/00      | 7/5/00                      | 010951 | 0546  | SAM-122                |
| 09/632,903    | 8/4/00      | 8/4/00                      | 011033 | 0398  | SAM-123                |
| 09/566,346    | 5/8/00      | 5/8/00                      | 010789 | 0198  | SAM-124                |
| 09/679,669    | 10/5/00     | 10/5/00                     | 011162 | 0374  | SAM-125                |
| 09/633,366    | 8/7/00      | 8/7/00                      | 011062 | 0911  | SAM-126                |
| 09/631,590    | 8/3/00      | 8/3/00                      | 011038 | 0576  | SAM-127                |
| 09/640,851    | 8/17/00     | 8/17/00                     | 011054 | 0564  | SAM-128                |
| 09/634,058    | 8/9/00      | 8/9/00                      | 011063 | 0146  | SAM-129                |
| 09/678,917    | 10/4/00     | 10/4/00                     | 011162 | 0385  | SAM-130                |
| 09/575,994    | 5/23/00     | 5/23/00                     | 010863 | 0087  | SAM-131                |
| 09/658,099    | 9/8/00      | 9/8/00                      | 011095 | 0928  | SAM-132                |
| 09/629,956    | 8/1/00      | 8/1/00                      | 011039 | 0160  | SAM-133                |
| 09/737,540    | 12/15/00    | 12/15/00                    | 011384 | 0052  | SAM-134                |
| 09/670,468    | 9/26/00     | 9/26/00                     | 011138 | 0910  | SAM-135                |

Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/660,571    | 9/13/00     | 9/13/00                     | 011090 | 0974  | SAM-136                |
| 09/742,030    | 12/20/00    | 12/20/00                    | 011405 | 0598  | SAM-137                |
| 09/642,995    | 8/21/00     | 8/21/00                     | 011040 | 0097  | SAM-138                |
| 09/761,618    | 1/16/01     | 1/16/01                     | 011483 | 0359  | SAM-139                |
| 09/724,151    | 11/28/00    |                             |        |       | SAM-140                |
| 09/672,924    | 9/28/00     | 1/11/01                     | 011420 | 0392  | SAM-141                |
| 09/637,981    | 8/11/00     | 8/11/00                     | 011036 | 0532  | SAM-142                |
| 09/666,218    | 9/21/00     | 9/21/00                     | 011113 | 0207  | SAM-143                |
| 09/660,103    | 9/12/00     | 9/12/00                     | 011085 | 0380  | SAM-144                |
| 09/628,834    | 7/31/00     | 7/31/00                     | 011034 | 0889  | SAM-145                |
| 09/715,679    | 11/17/00    | 11/17/00                    | 011309 | 0941  | SAM-146                |
| 09/679,699    | 10/5/00     | 10/5/00                     | 011162 | 0163  | SAM-147                |
| 09/777,756    | 2/5/01      | 2/5/01                      | 011546 | 0741  | SAM-148                |
| 09/699,849    | 10/30/00    | 10/30/00                    | 011272 | 0086  | SAM-149                |
| 09/699,591    | 10/30/00    | 10/30/00                    | 011268 | 0690  | SAM-150                |
| 09/699,589    | 10/30/00    |                             |        |       | SAM-151                |
| 09/803,309    | 3/9/01      |                             |        |       | SAM-154                |
| 09/702,523    | 10/31/00    | 10/31/00                    | 011270 | 0600  | SAM-155                |
| 09/715,372    | 11/17/00    | 11/17/00                    | 011326 | 0897  | SAM-156                |
| 09/737,507    | 12/15/00    | 12/15/00                    | 011378 | 0272  | SAM-157                |
| 09/739,186    | 12/18/00    | 12/18/00                    | 011367 | 0781  | SAM-158                |
| 09/740,512    | 12/19/00    | 12/19/00                    | 011404 | 0969  | SAM-159                |
| 09/777,446    | 2/6/01      | 2/6/01                      | 011543 | 0559  | SAM-160                |
| 09/777,547    | 2/6/01      | 2/6/01                      | 011528 | 0156  | SAM-161                |

Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/693,157    | 10/20/00    | 10/20/00                    | 011266 | 0545  | SAM-162                |
| 09/735,864    | 12/13/00    | 12/13/00                    | 011372 | 0581  | SAM-163                |
| 09/731,385    | 12/6/00     | 12/6/00                     | 011359 | 0422  | SAM-164                |
| 09/774,859    | 1/31/00     |                             |        |       | SAM-165                |
| 09/791,938    | 2/23/01     | 2/23/01                     | 011578 | 0266  | SAM-166                |
| 09/775,231    | 2/1/01      | 2/1/01                      | 011527 | 0937  | SAM-167                |
| 09/733,255    | 12/8/00     | 12/8/00                     | 011357 | 0188  | SAM-168                |
| 09/714,325    | 11/15/00    | 11/15/00                    | 011309 | 0533  | SAM-169                |
| 09/704,988    | 11/2/00     | 3/12/01                     | 011593 | 0585  | SAM-170                |
| 09/704,987    | 11/2/00     | 2/5/01                      | 011516 | 0112  | SAM-171                |
| 09/780,830    | 2/9/01      | 2/9/01                      | 011549 | 0823  | SAM-172                |
| 09/771,242    | 1/26/01     | 1/26/01                     | 011494 | 0645  | SAM-173                |
| 09/793,314    | 2/26/01     | 2/26/01                     | 011578 | 0041  | SAM-174                |
| 09/768,649    | 1/24/01     | 1/24/01                     | 011478 | 0829  | SAM-175                |
| 09/758,708    | 1/11/01     | 1/11/01                     | 011453 | 0172  | SAM-176                |
| 09/826,203    | 4/4/01      |                             |        |       | SAM-179                |
| 09/751,182    | 12/29/00    | 12/29/00                    | 011418 | 0850  | SAM-182                |
| 09/727,459    | 12/1/00     | 12/1/00                     | 011359 | 0234  | SAM-183                |
| 09/768,942    | 1/24/01     | 1/24/01                     | 011484 | 0297  | SAM-185                |
| 09/800,554    | 3/7/01      | 3/7/01                      | 011589 | 0915  | SAM-186                |
| 09/791,908    | 2/22/01     | 2/22/01                     | 011581 | 0129  | SAM-188                |
| 09/791,910    | 2/22/01     | 2/22/01                     | 011581 | 0074  | SAM-190                |
| 09/783,064    | 2/14/01     |                             |        |       | SAM-191                |
| 09/775,230    | 2/1/01      |                             |        |       | SAM-192                |



Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/750,943    | 12/28/00    | 2/26/01                     | 011542 | 0791  | SAM-194                |
| 09/794,800    | 2/27/01     | 2/27/01                     | 011570 | 0410  | SAM-197                |
| 60/267,908    | 2/9/01      |                             |        |       | SAM-204PR              |
| 60/273,890    | 3/6/01      |                             |        |       | SAM-211PR              |

Table 2: U.S. Patents

| Patent Number | Issue Date | Assignment<br>Recordation<br>Date | Reel | Frame | Attorney Docket<br>Number |
|---------------|------------|-----------------------------------|------|-------|---------------------------|
| 6,122,698     | 9/19/00    | 4/16/98                           | 9126 | 0430  | SAM-002                   |
| 6,021,484     | 2/1/00     | 5/5/98                            | 9212 | 0986  | SAM-007                   |
| 6,074,940     | 6/13/00    | 10/19/98                          | 9579 | 0533  | SAM-008                   |
| 6,175,145     | 1/16/01    | 11/30/98                          | 9621 | 0442  | SAM-008CIP                |
| 5,973,329     | 10/26/99   | 7/6/98                            | 9309 | 0670  | SAM-009                   |
| 6,218,715     | 4/17/01    | 9/8/98                            | 9448 | 0485  | SAM-013                   |
| 5,929,483     | 7/27/99    | 10/23/98                          | 9549 | 0096  | SAM-014                   |
| 6,207,519     | 3/27/01    |                                   |      |       | SAM-014DV                 |
| 6,148,426     | 11/14/00   | 4/28/98                           | 9143 | 0255  | SAM-017                   |
| 5,999,023     | 12/7/99    | 5/14/98                           | 9184 | 0606  | SAM-018                   |
| 6,121,893     | 9/19/00    | 8/19/98                           | 9403 | 0901  | SAM-019                   |
| 6,028,496     | 2/22/00    | 6/3/98                            | 9221 | 0020  | SAM-021                   |
| 6,121,825     | 9/19/00    | 9/21/98                           | 9474 | 0825  | SAM-022                   |
| 5,943,262     | 8/24/99    | 10/28/98                          | 9558 | 0696  | SAM-026                   |
| 6,100,764     | 8/8/00     | 1/4/99                            | 9695 | 0711  | SAM-027                   |
| 6,147,385     | 11/14/00   | 12/22/98                          | 9674 | 0988  | SAM-028                   |
| 6,061,270     | 5/9/00     | 12/28/98                          | 9684 | 0090  | SAM-029                   |
| 5,990,514     | 11/23/99   | 10/2/98                           | 9496 | 0822  | SAM-030                   |
| 5,952,952     | 9/14/99    | 9/14/98                           | 9448 | 0982  | SAM-031                   |
| 6,169,717     | 1/2/01     | 7/20/98                           | 9332 | 0332  | SAM-032                   |
| 6,069,831     | 5/30/00    | 10/26/98                          | 9549 | 0802  | SAM-033                   |
| 6,184,907     | 2/6/01     | 9/15/98                           | 9455 | 0030  | SAM-035                   |
| 6,192,016     | 2/20/01    | 11/6/98                           | 9577 | 0157  | SAM-036                   |
| 6,175,481     | 1/16/01    | 3/23/99                           | 9850 | 0274  | SAM-037                   |

Table 2: U.S. Patents (cont.)

| Patent Number | Issue Date | Assignment<br>Recordation<br>Date | Reel   | Frame | Attorney Docket<br>Number |
|---------------|------------|-----------------------------------|--------|-------|---------------------------|
| 5,991,203     | 11/23/99   | 10/27/98                          | 9561   | 0574  | SAM-039                   |
| 6,128,693     | 10/3/00    | 9/21/98                           | 9470   | 0459  | SAM-040                   |
| 5,936,890     | 8/10/99    | 9/29/98                           | 9505   | 0924  | SAM-044                   |
| 6,122,188     | 9/19/00    | 12/23/98                          | 9680   | 0378  | SAM-045                   |
| 6,157,575     | 12/5/00    | 3/23/99                           | 9850   | 0217  | SAM-046                   |
| 5,982,224     | 11/9/99    | 12/2/98                           | 9629   | 0049  | SAM-047                   |
| 5,959,922     | 9/28/99    | 10/26/98                          | 9549   | 0764  | SAM-050                   |
| 6,091,663     | 7/18/00    | 10/28/98                          | 9560   | 0517  | SAM-051                   |
| 6,122,762     | 9/19/00    | 10/30/98                          | 9568   | 0111  | SAM-055                   |
| 6,127,959     | 10/3/00    | 1/4/99                            | 9695   | 0658  | SAM-057                   |
| 6,208,092     | 3/27/01    | 11/16/98                          | 9592   | 0930  | SAM-058                   |
| 6,130,724     | 10/10/00   | 11/23/98                          | 9603   | 0103  | SAM-062                   |
| 6,100,769     | 8/8/00     | 3/23/99                           | 9850   | 0038  | SAM-063                   |
| 6,188,060     | 2/13/01    | 4/5/99                            | 9906   | 0240  | SAM-064                   |
| 6,141,229     | 10/31/00   | 7/8/99                            | 010093 | 0403  | SAM-074                   |
| 6,229,362     | 5/8/01     | 6/15/99                           | 010041 | 0140  | SAM-077                   |
| 6,172,516     | 1/9/01     | 7/9/99                            | 010099 | 0815  | SAM-078                   |
| 6,201,756     | 3/13/01    | 3/3/00                            | 010659 | 0557  | SAM-082                   |
| 6,188,631     | 2/13/01    | 5/30/00                           | 010860 | 0928  | SAM-089                   |
| 6,236,616     | 5/22/01    | 2/25/00                           | 010636 | 0772  | SAM-101                   |
| 6,197,636     | 3/6/00     | 3/14/00                           | 010694 | 0776  | SAM-102                   |

Samsung Electronics Co., Ltd., a Korean corporation, having a place of business at 416, Maetan-dong, Paldal-gu, Suwon-city, Kyungki-do, Republic of Korea, certifies that it is the assignee of the entire right, title and interest in the U. S. patent applications identified in Table 1 above and the U. S. patents identified in Table 2 above by virtue of assignments from the inventors of the patent applications and patents, which assignments are recorded in the U. S. Patent and Trademark Office at the reels and frames identified in the tables.

The undersigned has reviewed all documents in the chain of title of the patent applications and patents identified in the tables and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Name: Jay Shim

Title: Director/General Manager & General Patent Counsel, Samsung Electronics Co., Ltd.

Signature: 

Date: June 4, 2001



COPY OF PAPERS  
ORIGINALLY FILED

PATENT

Attorney Docket No.: SAM-0182

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Yong-Sub Kim  
Serial No.: 09/751,182  
Filing Date: December 29, 2000  
Title: OPTICAL TRANSMISSION SYSTEM FOR COMPENSATING FOR TRANSMISSION LOSS

Examiner: Not yet assigned  
Group Art Unit: 2633

CERTIFICATE OF MAILING UNDER 37 U.S.C. § 1.8

I hereby certify that this correspondence is being deposited with the United States Post Office as First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington DC 20231.

7-12-02  
Date

Vanessa Marakas  
Vanessa Marakas

Assistant Commissioner for Patents  
Washington, DC 20231

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JUL 23 2002

TRANSMITTAL LETTER

Technology Center 2600

Sir:

Enclosed herewith for filing in the above-identified patent application please find the following listed items:

1. Copy of Power of Attorney filed on August 27, 2001, in the referenced application; and
2. Return Postcard.

The Applicant's attorney notes that a Power of Attorney was filed in the referenced application on August 27, 2001 (copy enclosed). It is requested that the attorney correspondence address be updated accordingly.

In connection with the foregoing matter, please charge any additional fees which may be due, or credit any overpayment, to Deposit Account Number 50-1798. A duplicate copy of this letter is provided for this purpose.

Respectfully submitted,

Date: July 11, 2002  
MILLS & ONELLO LLP  
Eleven Beacon Street, Suite 605  
Boston, MA 02108  
Telephone: (617) 994-4900  
Facsimile: (617) 742-7774  
J:\SAM\0182\2ndtransPOA.wpd

Anthony P. Onello, Jr.  
Anthony P. Onello, Jr.  
Registration Number 38,572  
Attorney for Applicants

**COPY OF PAPERS  
ORIGINALLY FILED**

Mailed on August 27, 2001

SAM-182

Enclosed please find the following in re:

Appln. Serial No. 09/751,182

**OPTICAL TRANSMISSION SYSTEM FOR  
COMPENSATING FOR TRANSMISSION LOSS**

By Kim

Filed: December 29, 2000

- 1) Transmittal Letter; and
- 2) Copy of Power of Attorney by Assignee of  
Entire Interest with Revocation of Prior Powers  
and Certification under 37 CFR 3.73(b) for a Plurality  
of Patent Applications and Patents

APO/dmd

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**Technology Center 2600**

Mailed on August 27, 2001

SAM-182

Enclosed please find the following in re:

Appln. Serial No. 09/751,182

**OPTICAL TRANSMISSION SYSTEM FOR  
COMPENSATING FOR TRANSMISSION LOSS**

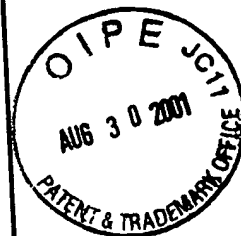
By Kim

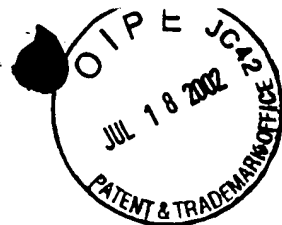
Filed: December 29, 2000

- 1) Transmittal Letter; and
- 2) Copy of Power of Attorney by Assignee of  
Entire Interest with Revocation of Prior Powers  
and Certification under 37 CFR 3.73(b) for a Plurality  
of Patent Applications and Patents

APO/dmd

This paper was received  
by the United States Patent  
and Trademark Office on:





COPY OF PAPERS  
ORIGINALLY FILED

PATENT  
Attorney Docket No.: SAM-0182

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Yong-Sub Kim  
Serial No.: 09/751,182  
Filing Date: December 29, 2000  
Patent No:  
Issue Date:

Examiner: Not Yet Assigned  
Group Art Unit: 2633

Title: Optical Transmission System for Compensating  
for Transmission Loss

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Post Office as First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington DC 20231.

August 27, 2001  
Date

Denise M. Donahue  
Denise Donahue

Assistant Commissioner for Patents  
Washington, DC 20231

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JUL 23 2002

TRANSMITTAL LETTER

Technology Center 2600

Sir:

Enclosed herewith for filing in the above-identified patent application or issued patent please find the following listed items:

1. Copy of Power of Attorney by Assignee of Entire Interest with Revocation of Prior Powers and Certification under 37 C.F.R. 3.73(b) for a Plurality of Patent Applications and Patents; and
2. Return Postcard.

The original version of this paper is filed in the U.S. Patent and Trademark Office in the file of U.S. Patent Number 5,973,329, which issued on October 26, 1999. The public is therefore authorized to inspect and copy the original paper.

Respectfully submitted,

Date: August 27, 2001  
Mills & Onello, LLP  
Eleven Beacon Street, Suite 605  
Boston, MA 02108  
Telephone: (617) 994-4900, Ext. 4902  
Facsimile: (617) 742-7774

Anthony P. Onello, Jr.  
Anthony P. Onello, Jr.  
Registration Number 38,572  
Attorney for Applicant



COPY OF PAPERS  
ORIGINALLY FILED

PATENT  
Attorney Docket No.: SAM-009

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Kim  
U. S. Patent No.: 5,973,329  
Serial No.: 09/062,314  
Title: Ion Generating Apparatus for Semiconductor Manufacturing Equipment  
Including Magnetic Field Switching Apparatus

Issue Date: 10/26/99  
Filing Date: 4/22/98

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Post Office as First Class Mail on the date indicated below in an envelope addressed to Assistant Commissioner for Patents, Washington, DC 20231.

July 18, 2001  
Date

Vanessa Marakas  
Vanessa Marakas

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Assistant Commissioner for Patents  
Washington, D.C. 20231

JUL 23 2002

Technology Center 2600

POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST  
WITH REVOCATION OF PRIOR POWERS AND  
CERTIFICATION UNDER 37 CFR 3.73(b)  
FOR A PLURALITY OF PATENT APPLICATIONS AND PATENTS

Sir:

Samsung Electronics Co., Inc., the assignee of record of the entire interest of the U. S. patent applications identified in Table 1 below and the issued U. S. patents identified in Table 2 below, hereby revokes all powers of attorney previously given and hereby grants new powers of attorney to the following attorney(s) and/or agents, all of the firm Mills & Onello, LLP, Eleven Beacon Street, Suite 605, Boston, Massachusetts, to prosecute and transact all business in the Patent and Trademark Office connected therewith.

Steven M. Mills - 36,610

Anthony P. Onello, Jr. - 38,572

SEND ALL CORRESPONDENCE AND DIRECT ALL TELEPHONE CALLS IN  
CONNECTION WITH ALL OF THE APPLICATIONS AND PATENTS TO:

Mills & Onello, LLP  
Eleven Beacon Street, Suite 605  
Boston, Massachusetts 02108  
Telephone: (617) 994-4900  
Facsimile: (617) 742-7774



Table 1: U.S. Patent Applications

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/009,211    | 1/20/98     | 6/29/98                     | 9320   | 0888  | SAM-001                |
| 09/512,128    | 2/24/00     | 4/24/00                     | 010775 | 0511  | SAM-003                |
| 60/121,764    | 2/26/99     | 4/26/99                     | 9913   | 0053  | SAM-003PR              |
| 09/714,392    | 11/16/00    |                             |        |       | SAM-008CIPDIV          |
| 09/560,359    | 4/28/00     |                             |        |       | SAM-008DIV             |
| 09/072,280    | 5/4/98      | 5/4/98                      | 9159   | 0911  | SAM-010                |
| 09/082,170    | 5/20/98     | 5/20/98                     | 9189   | 0228  | SAM-012                |
| 09/757,747    | 1/10/01     |                             |        |       | SAM-013DIV             |
| 09/060,242    | 4/14/98     | 7/13/98                     | 9316   | 0800  | SAM-016                |
| 09/174,394    | 10/14/98    | 10/14/98                    | 9522   | 0115  | SAM-020                |
| 09/082,353    | 5/20/98     | 5/20/98                     | 9189   | 0203  | SAM-023                |
| 09/089,525    | 6/3/98      | 8/17/98                     | 9391   | 0247  | SAM-024                |
| 09/140,152    | 8/26/98     | 8/26/98                     | 9415   | 0385  | SAM-025                |
| 09/103,430    | 6/24/98     | 9/24/98                     | 9474   | 0839  | SAM-034                |
| 09/162,267    | 9/29/98     | 3/22/99                     | 9836   | 0661  | SAM-038                |
| 60/090,137    | 6/22/98     |                             |        |       | SAM-038PR              |
| 09/198,230    | 11/23/98    | 11/23/98                    | 9606   | 0518  | SAM-041                |
| 09/847,639    | 5/2/01      |                             |        |       | SAM-041DIV             |
| 09/139,921    | 8/26/98     | 10/30/98                    | 9568   | 0238  | SAM-042                |
| 09/195,893    | 11/19/98    | 11/19/98                    | 9606   | 0616  | SAM-043                |
| 09/205,545    | 12/3/98     | 1/22/99                     | 9932   | 0332  | SAM-048                |
| 09/135,288    | 8/17/98     | 10/22/98                    | 9545   | 0535  | SAM-049                |
| 09/182,358    | 10/29/98    | 10/29/98                    | 9563   | 0887  | SAM-052                |
| 09/153,169    | 9/15/98     | 12/10/98                    | 9637   | 0972  | SAM-053                |

**Table 1: U.S. Patent Applications (cont.)**

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/175,088    | 10/19/98    | 10/19/98                    | 9523   | 0430  | SAM-054                |
| 09/841,652    | 4/24/01     |                             |        |       | SAM-054DIV             |
| 09/187,396    | 11/6/98     | 11/6/98                     | 9573   | 0096  | SAM-056                |
| 09/251,539    | 2/17/99     | 7/12/99                     | 010077 | 0234  | SAM-059                |
| 09/189,192    | 11/10/98    | 1/12/99                     | 9687   | 0858  | SAM-060                |
| 09/195,591    | 11/18/98    | 11/18/98                    | 9597   | 0721  | SAM-061                |
| 09/298,732    | 4/23/99     | 4/23/99                     | 9920   | 0244  | SAM-065                |
| 09/300,924    | 4/28/99     | 4/28/99                     | 9928   | 0356  | SAM-066                |
| 09/316,595    | 5/21/99     | 5/21/99                     | 009982 | 0957  | SAM-067                |
| 09/313,486    | 5/17/99     | 5/17/99                     | 009979 | 0735  | SAM-068                |
| 09/273,643    | 3/23/99     | 3/23/99                     | 9850   | 0209  | SAM-069                |
| 09/296,218    | 4/22/99     | 4/22/99                     | 9914   | 0014  | SAM-070                |
| 09/311,327    | 5/13/99     | 5/13/99                     | 009963 | 0028  | SAM-071                |
| 09/351,092    | 7/9/99      | 7/9/99                      | 010099 | 0957  | SAM-072                |
| 09/298,652    | 4/23/99     | 4/23/99                     | 9921   | 0433  | SAM-073                |
| 09/349,372    | 7/8/99      | 7/8/99                      | 010094 | 0479  | SAM-075                |
| 09/344,602    | 6/25/99     | 6/25/99                     | 010065 | 0524  | SAM-076                |
| 09/354,247    | 7/15/99     | 7/15/99                     | 010102 | 0830  | SAM-079                |
| 09/449,147    | 11/24/99    | 11/24/99                    | 010412 | 0516  | SAM-080                |
| 09/478,162    | 1/5/00      | 1/5/00                      | 010497 | 0292  | SAM-081                |
| 09/490,035    | 1/21/00     | 1/21/00                     | 010549 | 0769  | SAM-084                |
| 09/819,448    | 3/28/01     |                             |        |       | SAM-084DIV             |
| 09/479,602    | 1/7/00      | 1/7/00                      | 010534 | 0415  | SAM-085                |
| 09/441,860    | 11/17/99    | 7/17/00                     | 010978 | 0001  | SAM-086                |

Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/695,341    | 10/24/00    | 10/24/00                    | 011265 | 0976  | SAM-087                |
| 09/782,116    | 2/13/01     |                             |        |       | SAM-087CIP             |
| 60/161,479    | 10/25/99    |                             |        |       | SAM-087PR              |
| 09/477,235    | 1/4/00      | 1/4/00                      | 010517 | 0574  | SAM-088                |
| 09/514,744    | 2/28/00     | 2/28/00                     | 010642 | 0839  | SAM-090                |
| 09/481,158    | 1/12/00     | 1/12/00                     | 010500 | 0180  | SAM-091                |
| 09/539,138    | 3/30/00     | 3/30/00                     | 010709 | 0413  | SAM-092                |
| 09/525,730    | 3/14/00     | 3/14/00                     | 010694 | 0722  | SAM-093                |
| 09/492,589    | 1/27/00     | 1/27/00                     | 010551 | 0374  | SAM-094                |
| 09/538,879    | 3/30/00     | 3/30/00                     | 010713 | 0341  | SAM-095                |
| 09/524,069    | 3/13/00     | 3/13/00                     | 010670 | 0441  | SAM-096                |
| 09/521,904    | 3/9/00      | 3/9/00                      | 010670 | 0702  | SAM-097                |
| 09/484,974    | 1/18/00     | 1/18/00                     | 010542 | 0081  | SAM-098                |
| 09/476,567    | 1/3/00      | 1/3/00                      | 010521 | 0391  | SAM-099                |
| 09/513,796    | 2/25/00     | 2/25/00                     | 010643 | 0359  | SAM-100                |
| 09/620,666    | 7/20/00     | 7/20/00                     | 010989 | 0239  | SAM-103                |
| 09/513,712    | 2/25/00     | 2/25/00                     | 010636 | 0802  | SAM-104                |
| 09/645,285    | 8/24/00     | 8/24/00                     | 011059 | 0830  | SAM-105                |
| 09/639,833    | 8/16/00     | 8/16/00                     | 011050 | 0151  | SAM-106                |
| 09/491,383    | 1/26/00     | 1/26/00                     | 010554 | 0267  | SAM-107                |
| 09/481,251    | 1/11/00     | 4/5/00                      | 010730 | 0275  | SAM-108                |
| 09/677,029    | 9/29/00     | 9/29/00                     | 011168 | 0092  | SAM-109                |
| 09/552,424    | 4/19/00     | 4/19/00                     | 010759 | 0475  | SAM-110                |
| 09/630,292    | 8/1/00      | 8/1/00                      | 010985 | 0936  | SAM-111                |

Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/553,537    | 4/20/00     | 7/27/00                     | 011004 | 0043  | SAM-112                |
| 09/532,178    | 3/20/00     | 3/20/00                     | 010687 | 0180  | SAM-113                |
| 09/528,676    | 3/20/00     | 7/24/00                     | 010985 | 0276  | SAM-114                |
| 09/546,131    | 4/10/00     | 4/10/00                     | 010732 | 0862  | SAM-115                |
| 09/520,862    | 3/7/00      | 3/7/00                      | 010661 | 0869  | SAM-116                |
| 09/595,847    | 6/16/00     | 6/16/00                     | 010908 | 0541  | SAM-117                |
| 09/612,072    | 7/7/00      | 7/7/00                      | 010954 | 0259  | SAM-118                |
| 09/522,426    | 3/9/00      | 3/9/00                      | 010659 | 0458  | SAM-119                |
| 09/525,559    | 3/15/00     | 3/15/00                     | 010658 | 0257  | SAM-120                |
| 09/724,152    | 11/28/00    | 11/28/00                    | 011297 | 0088  | SAM-121                |
| 09/610,498    | 7/5/00      | 7/5/00                      | 010951 | 0546  | SAM-122                |
| 09/632,903    | 8/4/00      | 8/4/00                      | 011033 | 0398  | SAM-123                |
| 09/566,346    | 5/8/00      | 5/8/00                      | 010789 | 0198  | SAM-124                |
| 09/679,669    | 10/5/00     | 10/5/00                     | 011162 | 0374  | SAM-125                |
| 09/633,366    | 8/7/00      | 8/7/00                      | 011062 | 0911  | SAM-126                |
| 09/631,590    | 8/3/00      | 8/3/00                      | 011038 | 0576  | SAM-127                |
| 09/640,851    | 8/17/00     | 8/17/00                     | 011054 | 0564  | SAM-128                |
| 09/634,058    | 8/9/00      | 8/9/00                      | 011063 | 0146  | SAM-129                |
| 09/678,917    | 10/4/00     | 10/4/00                     | 011162 | 0385  | SAM-130                |
| 09/575,994    | 5/23/00     | 5/23/00                     | 010863 | 0087  | SAM-131                |
| 09/658,099    | 9/8/00      | 9/8/00                      | 011095 | 0928  | SAM-132                |
| 09/629,956    | 8/1/00      | 8/1/00                      | 011039 | 0160  | SAM-133                |
| 09/737,540    | 12/15/00    | 12/15/00                    | 011384 | 0052  | SAM-134                |
| 09/670,468    | 9/26/00     | 9/26/00                     | 011138 | 0910  | SAM-135                |

Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/660,571    | 9/13/00     | 9/13/00                     | 011090 | 0974  | SAM-136                |
| 09/742,030    | 12/20/00    | 12/20/00                    | 011405 | 0598  | SAM-137                |
| 09/642,995    | 8/21/00     | 8/21/00                     | 011040 | 0097  | SAM-138                |
| 09/761,618    | 1/16/01     | 1/16/01                     | 011483 | 0359  | SAM-139                |
| 09/724,151    | 11/28/00    |                             |        |       | SAM-140                |
| 09/672,924    | 9/28/00     | 1/11/01                     | 011420 | 0392  | SAM-141                |
| 09/637,981    | 8/11/00     | 8/11/00                     | 011036 | 0532  | SAM-142                |
| 09/666,218    | 9/21/00     | 9/21/00                     | 011113 | 0207  | SAM-143                |
| 09/660,103    | 9/12/00     | 9/12/00                     | 011085 | 0380  | SAM-144                |
| 09/628,834    | 7/31/00     | 7/31/00                     | 011034 | 0889  | SAM-145                |
| 09/715,679    | 11/17/00    | 11/17/00                    | 011309 | 0941  | SAM-146                |
| 09/679,699    | 10/5/00     | 10/5/00                     | 011162 | 0163  | SAM-147                |
| 09/777,756    | 2/5/01      | 2/5/01                      | 011546 | 0741  | SAM-148                |
| 09/699,849    | 10/30/00    | 10/30/00                    | 011272 | 0086  | SAM-149                |
| 09/699,591    | 10/30/00    | 10/30/00                    | 011268 | 0690  | SAM-150                |
| 09/699,589    | 10/30/00    |                             |        |       | SAM-151                |
| 09/803,309    | 3/9/01      |                             |        |       | SAM-154                |
| 09/702,523    | 10/31/00    | 10/31/00                    | 011270 | 0600  | SAM-155                |
| 09/715,372    | 11/17/00    | 11/17/00                    | 011326 | 0897  | SAM-156                |
| 09/737,507    | 12/15/00    | 12/15/00                    | 011378 | 0272  | SAM-157                |
| 09/739,186    | 12/18/00    | 12/18/00                    | 011367 | 0781  | SAM-158                |
| 09/740,512    | 12/19/00    | 12/19/00                    | 011404 | 0969  | SAM-159                |
| 09/777,446    | 2/6/01      | 2/6/01                      | 011543 | 0559  | SAM-160                |
| 09/777,547    | 2/6/01      | 2/6/01                      | 011528 | 0156  | SAM-161                |

Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/693,157    | 10/20/00    | 10/20/00                    | 011266 | 0545  | SAM-162                |
| 09/735,864    | 12/13/00    | 12/13/00                    | 011372 | 0581  | SAM-163                |
| 09/731,385    | 12/6/00     | 12/6/00                     | 011359 | 0422  | SAM-164                |
| 09/774,859    | 1/31/00     |                             |        |       | SAM-165                |
| 09/791,938    | 2/23/01     | 2/23/01                     | 011578 | 0266  | SAM-166                |
| 09/775,231    | 2/1/01      | 2/1/01                      | 011527 | 0937  | SAM-167                |
| 09/733,255    | 12/8/00     | 12/8/00                     | 011357 | 0188  | SAM-168                |
| 09/714,325    | 11/15/00    | 11/15/00                    | 011309 | 0533  | SAM-169                |
| 09/704,988    | 11/2/00     | 3/12/01                     | 011593 | 0585  | SAM-170                |
| 09/704,987    | 11/2/00     | 2/5/01                      | 011516 | 0112  | SAM-171                |
| 09/780,830    | 2/9/01      | 2/9/01                      | 011549 | 0823  | SAM-172                |
| 09/771,242    | 1/26/01     | 1/26/01                     | 011494 | 0645  | SAM-173                |
| 09/793,314    | 2/26/01     | 2/26/01                     | 011578 | 0041  | SAM-174                |
| 09/768,649    | 1/24/01     | 1/24/01                     | 011478 | 0829  | SAM-175                |
| 09/758,708    | 1/11/01     | 1/11/01                     | 011453 | 0172  | SAM-176                |
| 09/826,203    | 4/4/01      |                             |        |       | SAM-179                |
| 09/751,182    | 12/29/00    | 12/29/00                    | 011418 | 0850  | SAM-182                |
| 09/727,459    | 12/1/00     | 12/1/00                     | 011359 | 0234  | SAM-183                |
| 09/768,942    | 1/24/01     | 1/24/01                     | 011484 | 0297  | SAM-185                |
| 09/800,554    | 3/7/01      | 3/7/01                      | 011589 | 0915  | SAM-186                |
| 09/791,908    | 2/22/01     | 2/22/01                     | 011581 | 0129  | SAM-188                |
| 09/791,910    | 2/22/01     | 2/22/01                     | 011581 | 0074  | SAM-190                |
| 09/783,064    | 2/14/01     |                             |        |       | SAM-191                |
| 09/775,230    | 2/1/01      |                             |        |       | SAM-192                |

Table 1: U.S. Patent Applications (cont.)

| Serial Number | Filing Date | Assignment Recordation Date | Reel   | Frame | Attorney Docket Number |
|---------------|-------------|-----------------------------|--------|-------|------------------------|
| 09/750,943    | 12/28/00    | 2/26/01                     | 011542 | 0791  | SAM-194                |
| 09/794,800    | 2/27/01     | 2/27/01                     | 011570 | 0410  | SAM-197                |
| 60/267,908    | 2/9/01      |                             |        |       | SAM-204PR              |
| 60/273,890    | 3/6/01      |                             |        |       | SAM-211PR              |

Table 2: U.S. Patents

| Patent Number | Issue Date | Assignment<br>Recordation<br>Date | Reel | Frame | Attorney Docket<br>Number |
|---------------|------------|-----------------------------------|------|-------|---------------------------|
| 6,122,698     | 9/19/00    | 4/16/98                           | 9126 | 0430  | SAM-002                   |
| 6,021,484     | 2/1/00     | 5/5/98                            | 9212 | 0986  | SAM-007                   |
| 6,074,940     | 6/13/00    | 10/19/98                          | 9579 | 0533  | SAM-008                   |
| 6,175,145     | 1/16/01    | 11/30/98                          | 9621 | 0442  | SAM-008CIP                |
| 5,973,329     | 10/26/99   | 7/6/98                            | 9309 | 0670  | SAM-009                   |
| 6,218,715     | 4/17/01    | 9/8/98                            | 9448 | 0485  | SAM-013                   |
| 5,929,483     | 7/27/99    | 10/23/98                          | 9549 | 0096  | SAM-014                   |
| 6,207,519     | 3/27/01    |                                   |      |       | SAM-014DV                 |
| 6,148,426     | 11/14/00   | 4/28/98                           | 9143 | 0255  | SAM-017                   |
| 5,999,023     | 12/7/99    | 5/14/98                           | 9184 | 0606  | SAM-018                   |
| 6,121,893     | 9/19/00    | 8/19/98                           | 9403 | 0901  | SAM-019                   |
| 6,028,496     | 2/22/00    | 6/3/98                            | 9221 | 0020  | SAM-021                   |
| 6,121,825     | 9/19/00    | 9/21/98                           | 9474 | 0825  | SAM-022                   |
| 5,943,262     | 8/24/99    | 10/28/98                          | 9558 | 0696  | SAM-026                   |
| 6,100,764     | 8/8/00     | 1/4/99                            | 9695 | 0711  | SAM-027                   |
| 6,147,385     | 11/14/00   | 12/22/98                          | 9674 | 0988  | SAM-028                   |
| 6,061,270     | 5/9/00     | 12/28/98                          | 9684 | 0090  | SAM-029                   |
| 5,990,514     | 11/23/99   | 10/2/98                           | 9496 | 0822  | SAM-030                   |
| 5,952,952     | 9/14/99    | 9/14/98                           | 9448 | 0982  | SAM-031                   |
| 6,169,717     | 1/2/01     | 7/20/98                           | 9332 | 0332  | SAM-032                   |
| 6,069,831     | 5/30/00    | 10/26/98                          | 9549 | 0802  | SAM-033                   |
| 6,184,907     | 2/6/01     | 9/15/98                           | 9455 | 0030  | SAM-035                   |
| 6,192,016     | 2/20/01    | 11/6/98                           | 9577 | 0157  | SAM-036                   |
| 6,175,481     | 1/16/01    | 3/23/99                           | 9850 | 0274  | SAM-037                   |



Table 2: U.S. Patents (cont.)

| Patent Number | Issue Date | Assignment<br>Recordation<br>Date | Reel   | Frame | Attorney Docket<br>Number |
|---------------|------------|-----------------------------------|--------|-------|---------------------------|
| 5,991,203     | 11/23/99   | 10/27/98                          | 9561   | 0574  | SAM-039                   |
| 6,128,693     | 10/3/00    | 9/21/98                           | 9470   | 0459  | SAM-040                   |
| 5,936,890     | 8/10/99    | 9/29/98                           | 9505   | 0924  | SAM-044                   |
| 6,122,188     | 9/19/00    | 12/23/98                          | 9680   | 0378  | SAM-045                   |
| 6,157,575     | 12/5/00    | 3/23/99                           | 9850   | 0217  | SAM-046                   |
| 5,982,224     | 11/9/99    | 12/2/98                           | 9629   | 0049  | SAM-047                   |
| 5,959,922     | 9/28/99    | 10/26/98                          | 9549   | 0764  | SAM-050                   |
| 6,091,663     | 7/18/00    | 10/28/98                          | 9560   | 0517  | SAM-051                   |
| 6,122,762     | 9/19/00    | 10/30/98                          | 9568   | 0111  | SAM-055                   |
| 6,127,959     | 10/3/00    | 1/4/99                            | 9695   | 0658  | SAM-057                   |
| 6,208,092     | 3/27/01    | 11/16/98                          | 9592   | 0930  | SAM-058                   |
| 6,130,724     | 10/10/00   | 11/23/98                          | 9603   | 0103  | SAM-062                   |
| 6,100,769     | 8/8/00     | 3/23/99                           | 9850   | 0038  | SAM-063                   |
| 6,188,060     | 2/13/01    | 4/5/99                            | 9906   | 0240  | SAM-064                   |
| 6,141,229     | 10/31/00   | 7/8/99                            | 010093 | 0403  | SAM-074                   |
| 6,229,362     | 5/8/01     | 6/15/99                           | 010041 | 0140  | SAM-077                   |
| 6,172,516     | 1/9/01     | 7/9/99                            | 010099 | 0815  | SAM-078                   |
| 6,201,756     | 3/13/01    | 3/3/00                            | 010659 | 0557  | SAM-082                   |
| 6,188,631     | 2/13/01    | 5/30/00                           | 010860 | 0928  | SAM-089                   |
| 6,236,616     | 5/22/01    | 2/25/00                           | 010636 | 0772  | SAM-101                   |
| 6,197,636     | 3/6/00     | 3/14/00                           | 010694 | 0776  | SAM-102                   |

Samsung Electronics Co., Ltd., a Korean corporation, having a place of business at 416, Maetan-dong, Paldal-gu, Suwon-city, Kyungki-do, Republic of Korea, certifies that it is the assignee of the entire right, title and interest in the U. S. patent applications identified in Table 1 above and the U. S. patents identified in Table 2 above by virtue of assignments from the inventors of the patent applications and patents, which assignments are recorded in the U. S. Patent and Trademark Office at the reels and frames identified in the tables.

The undersigned has reviewed all documents in the chain of title of the patent applications and patents identified in the tables and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Name: Jay Shim

Title: Director/General Manager & General Patent Counsel, Samsung Electronics Co., Ltd.

Signature: 

Date: June 4, 2001

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# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 08195674  
PUBLICATION DATE : 30-07-96

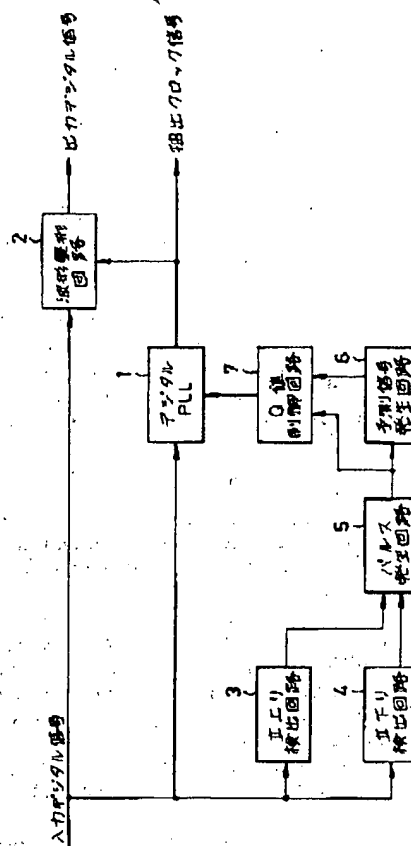
APPLICATION DATE : 18-01-95  
APPLICATION NUMBER : 07005435

APPLICANT : NEC CORP;

INVENTOR : SUZUKI KAZUHIRO;

INT.CL. : H03L 7/06 H04L 7/033

TITLE : CLOCK EXTRACTION CIRCUIT



**ABSTRACT** : **PURPOSE:** To shorten the time for pulling into synchronism and maintain the stable synchronous state in a digital PLL circuit.

**CONSTITUTION:** Rise and fall detecting circuits 3 and 4 detect variation points of an input digital signal and a pulse generating circuit 5 generates pulses corresponding to those variation points. A prediction signal generating circuit 6 predicts subsequent variation points of the input digital signal in response to the variation point pulses to generate prediction pulses. A Q value control circuit 7 latches the prediction pulses at each timing point of the variation point detection pulses and performs high/low control over the Q value of the PLL circuit 1 with the latch output.

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